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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,400	10/22/2001	Jae-Yoel Kim	678-760(P9995)	5097

7590 06/16/2004

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EXAMINER

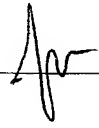
CHASE, SHELLY A

ART UNIT	PAPER NUMBER
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2133

DATE MAILED: 06/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/054,400	Applicant(s) KIM ET AL.	
	Examiner Shelly A Chase	Art Unit 2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5, 7-9, 11-18 and 20-22 is/are allowed.
- 6) ☒ Claim(s) 6, 10 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 to 22 are presented for examination.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119, which papers have been placed of record in the file.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a) because they fail to show for instance, fig. 1 does not seem to correspond and the following are missing or are not clearly identified in fig. 2: encoder 200, signal mapper 210 and multiplexer 220 as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claims 1 and 11 are objected to because of the following informalities: the end punctuation mark is missing.
Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 6 10 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6, recites the limitation "transmitted along with one frame" recited on line 2. There is insufficient antecedent basis for this limitation in the claim. Claims 10 and 19 have a similar problem.

Allowable Subject Matter

7. Claims 1 to 5, 7 to 9, 11 to 18 and 20 to 22 are allowed.
8. Claims 6, 10 and 19 would be allowable once the 112 second paragraph rejection is overcome.
9. The following is a statement of reasons for the indication of allowable subject matter:

The instant invention claims a method and an apparatus for creating a (24, 7) code using a Reed Muller code and a puncturer with a predefined puncturing pattern. The instant invention also claims an encoder encoding 7 input bits and puncturing 8 symbols from the symbols received from the encoder.

The prior art made of record teaches creating various codes using a Reed Muller code and a symbol puncturer; however, the prior art made of record fails to teach or fairly suggest puncturing 8 symbols according to the predefined puncturing pattern of

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the instant invention. For instance, TSG RAN WG1 Meeting # 17 discloses coding of transport format combination indicator (TFCI) wherein a (32 10) Reed Muller code is encoded and punctured according to 5 symbols for various puncturing patterns for various code lengths. However, the prior art made of record taken alone or in combination fails to teach or fairly suggest or render obvious the novel element of the instant invention. Specifically, the prior art made of record fails to teach or fairly suggest or render obvious an apparatus and a method for puncturing 8 symbols from the 32 symbols provided from the encoder according to a predefined puncturing pattern, wherein the predefined puncturing pattern is selected from the following group:

(0, 1, 3, 7,10,13,15,18)

(0, 1, 3, 7,10,13,15,25)

(0, 4,13,18,20,25,29,31)

(0, 1, 3, 7,10,11,13,16)

(0, 3,10,11,13,15,26,31).

Independent claims 1, 7, 11, 12, 13, 18 and 22 recites the novel element of the instant invention and are allowed for the reasons set forth above. Dependent claims 2 to 5, 8 to 9, 14 to 17 and 20 to 21 are allowed due to their dependency on allowed claims.

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Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shelly A Chase whose telephone number is 703-308-7246. The examiner can normally be reached on Mon-Thur from 8:00 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on 703-305-9595. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Shelly A Chase